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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/629,121	07/28/2003	Roger Pruitt	S604-J	5906

7590 05/14/2004
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EXAMINER

JIANG, CHEN WEN

ART UNIT	PAPER NUMBER
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3744

DATE MAILED: 05/14/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/629,121

Applicant(s)

PRUITT, ROGER

Examiner

Chen-Wen Jiang

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 July 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-46 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-46 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 28 July 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 20040115.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 28,29 and 38 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The phrase "of a conventional evaporative cooler operated under substantially the same external conditions" renders the claim(s) indefinite because the claim(s) include(s) elements not actually disclosed, thereby rendering the scope of the claim(s) unascertainable. See MPEP § 2173.05(d).
3. The following rejections are based on the best understanding of the claimed limitations.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1-5,7,10,11,13-28,34,40-42 and 45 are rejected under 35 U.S.C. 102(b) as being anticipated by Vaughan (U.S. Patent Number 4,090,370).

Applicant claims essential an apparatus/process with different language constructions.

Vaughan discloses an environmental control system for regulating humidity and temperature.

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Referring to Figs. 1, 7 and 8, cooling is accomplished by actuating the blower 20 in the dry air flow path so that air from the confined volume flows through the first group of tubes 14, through the plenum chamber 16 and through the second group of tubes 18. The water pump 52 is actuated to spray water in the evaporation path and on the padding 32 surrounding the tubes 14, 18, and the axial-centrifugal blower 26 is turned on to direct air through the evaporation flow path. If humidification is also desired, the first controllable vent 28 is opened, while the second controllable vent 30 is closed so that humidified air from the evaporation flow path is expelled to the confined volumetric region. As air passes across the moistened tubes 14, 18, the water in the padding 32, as well as some of the water spray, evaporates, chilling the padding 32 surrounding the tubes 14, 18. Heat exchanged between the interior and exterior of the tubes chills the dry flow path air within the tubes which is expelled from the outlet chamber to the confined volumetric region. The inlet duct has a manually movable hinged plate 38 defining an auxiliary inlet (Fig. 3) in which the plate 38 is extended in an open position. The auxiliary inlet, when open, allows recirculation of room air through the evaporation path. The evaporation path outlet duct 36 is coupled by a transfer duct 37 to the dry flow path inlet 12 to selectively admit humidified evaporation flow path air to the dry air flow path. A control unit 62 includes the high and low temperature and humidity sensors. A temperature and humidity responsive control unit is integrally coupled to selectively actuate the controllable vents, the blowers, the pump and the heating element.

6. Claims 1-14, 21-23, 25-28, 34, 40-42 and 45 are rejected under 35 U.S.C. 102(b) as being anticipated by Schlom et al. (U.S. Patent Number 4,137,058).

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Applicant claims essential an apparatus/process with different language constructions. Schlom et al. disclose a pre-cooler. Referring to Figs.2 and 3, fresh air entering the dry side through a first input port 34, past a filter 35, is sensibly cooled and exits through a cool dry air exhaust port 38, whereas fresh air entering the wet side through a second input port 36 is cooled through an evaporative process and exits through a cool moist air output port 58. The heat exchanger 10 also includes a dry side blower 72, a wet side blower 74 and vertically disposed hollow elongated tubular conduits 76, the inner and outer walls of which form the heat exchanger wet and dry surfaces, respectively. A water reservoir 77 is formed at the bottom of the heat exchanger and beneath the conduits 76 from which water pump 79 pumps water through ducting 81 to nozzles 83 disposed over the upper ends of the conduits 76. The air from output ports 58 and 38 are combined and flow into the pre-cooler 20.

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 15-19,29,36-39 and 46 are rejected under 35 U.S.C. 103(a) as being unpatentable over Vaughan (U.S. Patent Number 4,090,370).

Vaughan discloses the invention substantially as claimed. Vaughan does not disclose expressly the operation based on the temperature, humidity conditions. At the time the invention was made, it would have been an obvious matter of design choice to a person of ordinary skill in

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the art to operate the cooler at desired and comfortable temperature and humidity because Applicant has not disclose that temperature and humidity provides an advantage, is used for a particular purpose, or solves a stated problem of prior art. Therefore, it would have been an obvious matter of design/user choice to select desired operation conditions.

9. Claims 6,8,9,12,30-33,35,43 and 44 are rejected under 35 U.S.C. 103(a) as being unpatentable over Vaughan (U.S. Patent Number 4,090,370).

Vaughan discloses the invention substantially as claimed. In regarding to the claims of power source, ambient energy harvesting system, secondary battery system, Applicant should note the selection of available power source is a design choice within the skill of prior art. In regard to the selection of temperature, humidity and timer, Applicant should note these are the user's choice and are not patentable.

Conclusion

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Munters et al. (U.S. Patent Number 4,002,040), Schlom et al. (U.S. Patent Number 4,023,949), Schlom et al. 4,156,351), Otterbein (U.S. Patent Number 4,544,513), Rotenberg et al. (U.S. Patent Number 5,187,946), Wright (U.S. Patent Number 5,800,595) and Schlom et al. (U.S. Patent Number 6,385,987) are made of record as relevant prior art.

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Chen-Wen Jiang whose telephone number is (703) 308-0275. The examiner can normally be reached on Tuesday-Friday from 7:00 to 5:30.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Denise Esquivel can be reached on (703) 308-2597. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Chen-Wen Jiang
Primary Examiner

A handwritten signature in black ink, appearing to be 'C. W. Jiang', written in a cursive style.